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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/827,447	04/20/2004	Hiromi Aoi	252088US2	2725
22850	7590	12/01/2005	EXAMINER	
OBLON, SPIVAK, MCCLELLAND, MAIER & NEUSTADT, P.C.			ELEY, TIMOTHY V	
1940 DUKE STREET			ART UNIT	
ALEXANDRIA, VA 22314			PAPER NUMBER	

3724

DATE MAILED: 12/01/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

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<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/827,447	AOI ET AL.	
	<b>Examiner</b>	<b>Art Unit</b>	
	Timothy V. Eley	3724	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-12 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-12 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 20 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)                        | 4) <input type="checkbox"/> Interview Summary (PTO-413)                     |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)               | Paper No(s)/Mail Date. ____ .   |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date <u>6/10/04, 9/8/04</u> .   | 6) <input type="checkbox"/> Other: ____.                                    |

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***Specification***

1. The abstract of the disclosure is objected to because it should be a single paragraph. Correction is required. See MPEP § 608.01(b).

***Claim Objections***

2. Claim 2 is objected to because "wherein a film . . . member(lines 1-3) is awkwardly worded. Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 1-12 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

- In claim 12, applicant recites that the polishing end point is detected through the light transmitting member of the polishing pad or the polishing laminated pad. However, claim 1 nor 10 recites that the polishing pad is capable of transmitting light.
- The following phrases in the claims lack proper antecedent basis since they were not properly earlier referred to:
  - o "its polishing surface"(claim 1, line 2).
  - o "the opposite surface"(claim 1, line 3).
  - o "the outer wall"(claim 1, line 5).

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- o "the inner wall"(claim 1, line 6).
- o "the water-insoluble matrix material"(claim 4, line 2).
- o "the polishing laminated pad"(claim 11, lines 5 and 6).

***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

6. Claims 1,2, and 7-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al(6,832,950) in view of Kuczynski(2002/0144771).

- Wright et al discloses a polishing pad comprising a polishing substrate having a through hole and a light transmitting member arranged in the through hole by bonding an outer wall of the light transmitting member to the inner wall of the through hole opposed to the outer wall with an adhesive layer(150,160), and a method of polishing a semiconductor using the pad. See abstract and figure 3.
- Wright et al does not specifically disclose that the adhesive layer is photocured.
- Kuczynski discloses using a photocured adhesive for securing optical sub-assemblies. See paragraphs 3 and 5.

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- Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have modified the Wright et al by replacing the adhesive used therein with a photocured adhesive as taught by Kuczynski in order to better secure the window in the polishing pad.
- Regarding claim 2, inherently some adhesive will spill out of the opening and cover the surface opposite to the polishing surface(note applicant does not recite completely covering the surface).
- Regarding claims 7 and 8, the adhesive comprises a polyurethane (meth)acrylate. See paragraph 21.
- Regarding claims 10,11 and 12, the polishing pad is laminated with a base layer that inherently has light transmission properties since Wright et al state that the layer may be made of material used in commercially available polishing pads(see column 3, lines 49-55); and the examiner takes Official Notice that some commercially available polishing pads include base layers which have light transmissions properties as broadly recited by applicant.

7. Claims 3-6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Wright et al in view of Koike et al(6,544,104.).

- Wright et al is explained above.
- Wright et al does not specifically disclose that the light transmitting member is composed of a crosslinked polymer.

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- Koike et al disclose that it is well known in the art to use a crosslinked polymer for forming a light transmitting member. See column 6, lines 6-30.
- Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have further modified the Wright et al apparatus and method by using a crosslinked polymer for forming the light transmitting member as taught by Koike et al in order to make it stronger(see column 6, lines 6-8). The exact type of polymer would have been obvious to one having ordinary skill in the art at the time the invention was made since there are numerous crosslinked polymers, and applicant does not disclose any particular reason as to why one performs better than another.
- Regarding claim 6, Wright discloses the transmission range. See column 3, lines 1-16.

#### ***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

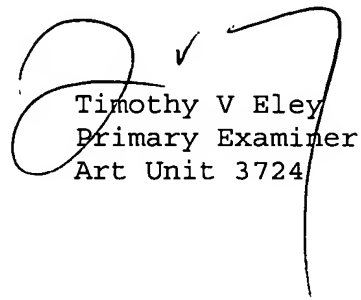
- The cited prior art discloses polishing pads.

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Timothy V. Eley whose telephone number is 571-272-4506. The examiner can normally be reached on M-F.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Allan N. Shoap can be reached on 571-272-4514. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

A handwritten signature in black ink, consisting of a large, stylized 'T' and 'E' with a checkmark above the 'E'.  
Timothy V Eley  
Primary Examiner  
Art Unit 3724

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